

# INDIANA DEPARTMENT OF NATURAL RESOURCES DIVISION OF RECLAMATION

# COMPLIANCE INSPECTION REPORT

Inspector Name Timothy A. Corn Date of Inspection 02/25/2013 Time 11:05 Punit # 417 County Pike Date of Last Inspection 01/30/2013  Status R Weather/Ground Conditions 41°F Fair; Ground Soft  Inspection Type: C (P, C, PC) [ ]  Operation Type: X Surface Processing Exploration Underground  Is This Inspection For Last Month? (Y/N) N	AM
Mines/Permits with this Unit: X S-354 Peabody Midwest Mining, LLC - Somerville East Mine	
INSPECTION CHECKLIST: Indicate compliance code for items checked. Items marked (S) wer satisfactory. For any items marked (X), provide a narrative to support this determination. Items marked (NA) are not applicable to this inspectable unit.	e
X 1. Areas Permitted, Bonded, or Unsuitable. S 2. Signs and Markers, Survey Corner Markers. NA 3. Operations, Coal Recovery, and Cessation of Operations. NA 4. Backfilling and Grading, Contemporaneous Reclamation. NA 5. Topsoil, Alternate Material, and Prime Farmland Handling. X 6. Revegetation/Rills and Gullies, and Slides. X 7. Post-Mining Land Use, Fish and Wildlife Mitigation. X 8. Hydrologic Balance. NA 9. Disposal of Coal/Non-Coal Waste, and Excess Spoil. NA 10. Auguring, Processing, and Steep Slopes. NA 11. Transportation and Support Facilities - Utility Install. NA 12. Casing/Sealing Exposed Underground Openings. NA 13. Subsidence Control Prevention. S 14. Liability Insurance Expires 11/01/2012 NA 15. Bond Release Information. X 16. Other Permit and Site Conditions: NPDES #ING0040206; Water Monitoring S 17. Off-Site Impacts Noted (Y/N) N.	
(If yes, attach off-site impact form as COVER to this inspection.)	
Responsible Official & Address: Copy Issued To:	^
Mr. Greg Olinger  UMI, LLC P.O. Box 400 Huntingburg, IN 47542  Mot Issued on Site Peabody Midwest Mining, LLC 7100 Eagle Crest Blvd, Ste 100 Evansville, IN 47715	
Signature: Date: February 25, 2013  Authorized Representative	
Division of Reclamation	

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Permittee Peabody Midwest Mining, LLC Signature of Co. Rep. Not Completed on Site Mine Somerville East Mine Unit # 417 County Pike Date of Insp. February 25, 2013 Time 11:05 AM

### COMMENTS:

1. Areas Permitted, Bonded, or Unsuitable

A. The S-354 permit acreage is broken down as follows:

Phase I (grading) retained: Permitted acreage: 926.9 acres 3.8 acres Bonded Acreage: 443.2 acres Phase II (reveg) retained: 10.3 Phase III (final) retained: 248.5

- B. Coal recovery was finished in the S-354 permit area in the early part of June 2008and the permit expired on 3/20/2010. A final affected area report has not been filed for this operation.
- 4. Backfilling and Grading, Contemporaneous Reclamation. The terrace's western portion that connected Triad's pond to the final cut still needs to be reclaimed all the way through the outfall into the final cut. The channel of this terrace and the outfall are severely eroded.
- 6. Revegetation/Rills and Gullies, and Slides.
- 7. Post-Mining Land Use, Fish and Wildlife Mitigation
  - A. Land uses and vegetation of the bonded area are similarly established. The understory is stable with orchard grass, perennial rye, white clover, red clover, partridge pea and annuals in the species mix. Phragmites has gained a foothold at the east end of the wetland. Come September plans should be ready for followthrough for eradication.
  - B. The Forest and Wildlife land uses are well vegetated with a mixture of tree and shrub species including various oak sp. (red, white, swamp white, bur), hickory, bald cypress, pecan, walnut, ninebark, sycamore, tulip poplar, sweetgum, dogwood, buttonbush, river birch, maple, pine, persimmon, and others. Some volunteer species are also coming in, including cottonwood, willow, sycamore, maple and black locust. Establishment and growth continues to be good to very good throughout except in a few areas where field mice have eaten through the root collar or where deer have browsed back stem tops.
  - C. Wildlife areas are vegetated in the same manner as the forest areas. A few sparrows and turkey buzzards were observed but very few hawks. Erection of a few cloths line poles may encourage hawk to perch and in turn, help control field mice. Presently coyotes are the most reliable rodent controllers. Several burrows were dug up and the nesting was scattered about where coyotes dug them through.
  - D. Several rills and gullies that were stabilized with straw on the south side of the access road now contain grasses for long term stabilization. However, vehicle traffic is causing erosion where the shale road transitions to clay. Two or three smaller gullies are located on the northeast perimeter of the pond just off the entrance road. No major work is necessary on these since a little stuffed mulch would supplement established vegetation.
  - E. Significant erosion was found and flagged in orange north of the wetlands.
  - F. Stream construction is well advanced now that the channel has been opened from Triad's pond. Very little stream erosion was observed, mainly due to well positioned structure. Riprap has been installed with purpose to keep downstream pools cleared of sediment. The long discharge pipe leading from one of the wetlands still needs to be removed for work to be complete. The upper reaches of the north/south stream segment does have some erosion in the channel where structure is still needed and at points where field drainage enters the stream.

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#### COMMENTS:

Orange flagging was placed to mark the most notable erosion. Some erosion is also occurring where pond drainage is entering the stream.

- 8. Hydrologic Balance
- 16. Other Permit and Site Conditions: NPDES #ING0040206 Water Monitoring
  - A. One ground water well (GMM-1) is to be monitored quarterly through phase III release for pH, TDS (or Spec Conductivity), Total Iron, Total Manganese, Acidity, Alkalinity, and Static Water Level (tape down). Reports have been received up to and including July 2012 (3<sup>rd</sup> quarter).
    - 1. GWM-2 was monitored through July 2005 after which it was mined through by the adjoining Triad South Augusta mine (S-353). Restoration of this well is not required and data collection from this well is finished.
    - Ground water monitoring for residential well #10 was concluded with the August 2009 report.
  - B. Two surface water stations, R-75 and R-66, are monitored quarterly through final bond release for total dissolved solids or specific conductance, total suspended solids, pH, total iron, total manganese, and flow. Reports for these stations have been received through July 2012 (3<sup>rd</sup> quarter).
  - C. Remaining NPDES outfalls are at basins EL-22, SE-09S, SE-12S, EL-17 (phase II), and FC-2. All NPDES points are in reclamation status (quarterly) and all but EL-22 were part of a recent phase III bond release inspection. See the chart at the end of this report for discharge results.
    - Reports for SE-9S, SE-12S, FC-2, EL-17, and EL-22 have been received through July 2012 (3<sup>rd</sup> quarter). NPDES reports received to date indicate continuing compliance with Federal and State effluent limits. All watersheds are phase III eligible from a vegetation standpoint, although the 5 year liability period still needs to run. The possibility of ending the NPDES permit has been discussed with United Minerals.
    - 2. Each of the above named sediment ponds have been certified. Also, certifications of Salt Lick Lake, FC-1, and basins SE-5S, SE-6S, SE-8S, SE-10S, SE-11S, and SE-13S (not NPDES points) have been submitted and approved. All impoundments are exempted from annual examination reporting requirements of 312 IAC 25-6-20(9)(E).
    - 3. An iron seep(s) continues south of the wetland in the vicinity of FC #1. The seep appears to have little impact on Basin EL 17 discharge water quality. EL-17 is discharging clear water with a pH of 7.5 and an iron content of 1.1 mg/l (Hach). United Minerals has been collecting grab samples upstream from Basin EL-17 with similar results since the seep was first noticed in April 2011. Upgradient testing is important because United has requested that the plug that diverts the watershed into basin EL-17 be removed. A smaller seep is near the final cut outfall. jThe pH of this seep is at 7.9 (pHTestr35).
  - D. Basins SE-9s, SE-12S, and FC-2 are not discharging. Basin EL-22 has a clear trickle of a discharge with a pH of 7.5 and an iron content less than 1.0 mg/l (Hach).

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## COMMENTS:

16. Other Permit and Site Conditions: NPDES Water Monitoring.
Discharge was tested using a pHTestr35 three-way calibrated on 2/25/2013.

NPDES PERMIT: ING0040	206								
SB/PI NO.	NPDES Outfall	NPDES Status	Discharge	Flow rate	рН	Iron Mg/l	Settable solids	Insp Date	
EL-17	EL17	ALK	Yes	M	7.7	ST	Clear	02-25-2013	
EL-22	022S	ALK	Yes	Т	8.0	ST	Clear	02-25-2013	
SE-9S	009S	ALK	NO	NQ			N/A	02-25-2013	
SE-12S	012S	ALK	NO	NQ			N/A	02-25-2013	
FC-2	FC2	ALK	NO	NQ			N/A	02-25-2013	
		Status: UND ALK ACID DROP	Discharge: Yes No	Flow: Trickle (T) Low (L) Moderate(M) High (H)					

<sup>\*</sup>NQ=No Flow; \*\*ST=Storm Exempt

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